

# LABORATORY COMPACTION CHARACTERISTICS OF SOIL (COMPACTION TEST)

1. PROJECT		2. EXCAVATION NUMBER	3. SAMPLE NUMBER	4. DATE
		5. LAYERS/BLOWS PER LAYER	6. WEIGHT OF TAMPER (lb)	7. HEIGHT OF DROP (in)
		8. SPECIFIC GRAVITY OF SOLIDS, G <sub>s</sub>	9. DIAMETER OF MOLD (in)	10. VOLUME OF SOIL SAMPLE (cu ft)
				0.0333 cu ft    0.0750 cu ft
11. RUN NUMBER	UNITS			
12. WEIGHT OF MOLD + WET SOIL	Grams			
13. WEIGHT OF MOLD	Grams			
14. WEIGHT OF WET SOIL (12 - 13)	Grams			
15. WET UNIT WEIGHT, $\gamma_{wet}$ (14/453.6)/10*	Pcf			
16. TARE NUMBER				
a. WEIGHT OF TARE + WET SOIL	Grams			
b. WEIGHT OF TARE + DRY SOIL	Grams			
c. WEIGHT OF WATER, $W_w$ (a - b)	Grams			
d. WEIGHT OF TARE	Grams			
e. WEIGHT OF DRY SOIL, $W_s$ (b - d)	Grams			
f. WATER CONTENT, $w = \frac{W_w}{W_s} \times 100$ (c / e x 100)	Percent			
17. AVERAGE WATER CONTENT	Percent			
18. DRY UNIT WEIGHT, $\gamma_d = \frac{\gamma_{wet}}{1 + (w/100)}$	Pcf			
19. REMARKS				
* This formula contains the conversion from grams to pounds. Omit the conversion factor if the unit weight used is not grams.				
20. TECHNICIAN (Signature)		21. COMPUTED BY (Signature)		22. CHECKED BY (Signature)